

## **Appendix**

### **A. Simple Flow**

```
<?xml version="1.0"?>

<module
  xmlns="x-schema: schedulerSchema.xml"
  xmlns: com="x-schema: comSchedulerSchema.xml">

  <schedule
    name="simple"
    identity="333C7BC4-460F-11D0-BC04-0080C7055A83">

    <header>
      <portList>
        <port name="pA"/>
        <port name="pB"/>
      </portList>
      <messageList>
        <message name="mM"/>
        <message name="mN"/>
      </messageList>
    </header>

    <sequence>
      <sink> <portRef location="pA"/>
        (messageRef location="mM"/> </sink>
      <source> <portRef location="pB"/>
        <messageRef location="mM"/> </source>
    </sequence>

  </schedule>

  <binding>

  <scheduleRef location="simple"/>

  <translationHeaderList>

  <translationHeader>
    <com: header synchronization="activity"/>
  </translationHeader>

</translationHeaderList>
```

<schemaList>

```
<Schema
  name="simpleMessages"
  xmlns="urn: schemas-microsoft-com: xml-data"
  xmlns: dt="urn: schemas-microsoft-com: datatypes">
  <ElementType name="mMType" content="eltOnly">
    <element type="x"/>
    <element type="y"/>
    <element type="z"/>
  </ElementType>
  <ElementType name="x" dt: type="int"/>
  <ElementType name="y" dt: type="int"/>
  <ElementType name="z" dt: type="int"/>
</Schema>
```

</schemaList>

<messageDeclList>

```
<messageDecl>
  <messageRef location="mM"/>
  <messageTypeRef location="simpleMessages#mMType"/> < ! - -
or something like it - - >
</messageDecl>
```

```
<messageDecl>
  <messageRef location="Mn"/>
  <messageTypeRef location="junk.xml#mNType"/> < ! - - or
something like it - - >
</messageDecl>
```

</messageDeclList>

<portBindingList>

```
<portBinding>
  <portRef location="pA"/>
  <portTranslation>
    <com: interface
      iid="DF37B56C-0343-11D3-8B19-0000F8757E2A"
      clsid="DF37B56D-0343-11D3-8B19-0000F8757E2A"/>
    </portTranslation>
  <messageBindingList>
    <messageBinding>
```

```
<messageRef location="mM"/>
<messageTranslation>
  <com: method
    slot="3"
    name="foo"/>
</messageTranslation>
<fieldBindingList>
  <fieldBinding>
    <fieldRef location="x"/>
    <fieldTranslation>
      <com: parameter
        index="0"
        name="x"/>
    <fieldTranslation>
      <provide/>
    </fieldBinding>
  <fieldBinding>
    <fieldRef location="y"/>
    <fieldTranslation>
      <com: parameter
        index="1"
        name="y"/>
    <fieldTranslation>
      <provide/>
    </fieldBinding>
  <fieldBinding>
    <fieldRef location="z"/>
    <fieldTranslation>
      <com: parameter
        index="2"
        name="z"/>
    </fieldTranslation>
    <require/>
  </fieldBinding>
</fieldBindingList>
</messageBinding>
</messageBindingList>
</portBinding>

<portBinding>
  <portRef location="pB"/>
  <portTranslation>
    <com: interface
      iid="4A0673EE-0AE5-11D3-8B1F-0000F8757E2A"
      clsid="4A0673EF-0AE5-11D3-8B1F-0000F8757E2A"/>
```

```

</portTranslation>
<messageBindingList>
  <messageBinding>
    <messageRef location="mN"/>
    <messageTranslation>
      <com: method
        slot="3"
        name="bar"/>
    </messageTranslation>
    <fieldBindingList>
      <fieldBinding>
        <fieldRef location="x"/>
        <fieldTranslation>
          <com: parameter
            index="0"
            name="x"/>
        </fieldTranslation>
        <from>
          <fieldRef location="mM.z"/> < 1 - - or something
like it - ->
        </from>
        <provide/>
      </fieldBinding>
    </fieldBindingList>
  </messageBinding>
</messageBindingList>
</portBinding>

</portBindingList>

</binding>

</module>

```

## B. BANG XML

```

<! --
  binding ::= scheduleRef translationHeaderList?
  schemaList? MessageDeclList
  portBindingList contextBindingList? RuleBindingList?
  callBindingList?
-->

<ElementType name="binding" content="eltOnly">
  <attribute type="name"/>

```

```

<attribute type="identity"/>

<group order="seq">
  <element type="scheduleRef"/>
  <element type="translationHeaderList" MinOccurs="0" maxOccurs="1"/>
  <element type="schemaList" minOccurs="0" maxOccurs="1"/>
  <element type="messageDeclList"/>
  <element type="portBindingList"/>
  <element type="contextBindingList" minOccurs="0" maxOccurs="1"/>
  <element type="ruleBindingList" minOccurs="0" maxOccurs="1"/>
  <element type="callBindingList" minOccurs="0" maxOccurs="1"/>
</group>
</ElementType>

<!--
  translationHeaderList ::= translationHeader*
  translationHeader ::= <technology specific content>
-->

<ElementType name="translationHeaderList">
  <element type="translationHeader" minOccurs="0" maxOccurs="*" />
</ElementType>

<ElementType name="translationHeader"/>

<!--
  schemaList ::= Schema*
-->

<ElementType name="schemaList"/>

<!--
  messageDeclList ::= messageDecl*
  messageDecl ::= messageRef messageTypeRef
-->

<ElementType name="messageDeclList">
  <element type="messageDecl" minOccurs="0" maxOccurs="*" />
</ElementType>

<ElementType name="messageDecl" content="eltOnly">
  <group order="seq">
    <element type="messageRef"/>
    <element type="messageTypeRef"/>
  </group>

```

</ElementType>

```
<ElementType name="messageTypeRef">
  <attribute type="location"/>
</ElementType>
```

```
<!--
  portBindingList ::= portBinding*
  portBinding ::= portRef portTranslation
  messageBindingList latency?
-->
```

```
<ElementType name="portBindingList">
  <element type="portBinding" minOccurs="0" maxOccurs="*" />
</ElementType>
```

```
<ElementType name="portBinding" content="eltOnly">
  <group order="seq">
    <element type="portRef" />
    <element type="portTranslation" />
    <element type="messageBindingList" />
    <element type="latency" minOccurs="0" maxOccurs="1" />
  </group>
</ElementType>
```

```
<ElementType name="portTranslation" />
```

```
<!--
  messageBindingList ::= messageBinding*
  messageBinding ::= messageRef messageTranslation
  fieldBindingList latency?
-->
```

```
<ElementType name="messageBindingList">
  <element type="messageBinding" minOccurs="0" maxOccurs="*" />
</ElementType>
```

```
<ElementType name="messageBinding" content="eltOnly">
  <group order="seq">
    <element type="messageRef" />
    <element type="messageTranslation" />
    <element type="fieldBindingList" />
    <element type="latency: minOccurs="0" maxOccurs="1" />
  </group>
```

```
</ElementType>

<ElementType name="messageTranslation"/>

<!--
    fieldBindingList ::= fieldBinding*
    fieldBinding ::= fieldRef from? provide? require?
    portRef?
-->

<ElementType name="fieldBindingList">
    <element type="fieldBinding" minOccurs="0" maxOccurs="*" />
</ElementType>

<ElementType name="fieldBinding" content="eltOnly">
    <group order="seq">
        <element type="fieldRef" />
        <element type="fieldTranslation" />
        <element type="from" minOccurs="0" maxOccurs="1" />
        <element type="provide" minOccurs="0" maxOccurs="1" />
        <element type="require" minOccurs="0" maxOccurs="1" />
        <element type="portRef" minOccurs="0" maxOccurs="1" />
    </group>
</ElementType>

<ElementType name="fieldRef">
    <attribute type="location" />
</ElementType>

<ElementType name="fieldTranslation"/>

<ElementType name="from">
    <element type="fieldRef" />
</ElementType>

<ElementType name="provide" content="empty"/>

<ElementType name="require" content="empty"/>

<!--
    contextBindingList ::= contextBinding*
    contextBinding ::= contextRef (retry backoff) ? timeout?
-->

<ElementType name="contextBindingList">
```

```
<element type="contextBinding" minOccurs="0" maxOccurs="*" />
</ElementType>
```

```
<ElementType name="contextBinding" content="eltOnly">
  <group order="seq">
    <element type="contextRef" />
    <group order="seq" minOccurs="0" maxOccurs="1">
      <element type="retry" />
      <element type="backoff" />
    </group>
    <element type="timeout" />
  </group>
</ElementType>
```

```
<ElementType name="retry" dt: type="int" />
```

```
<ElementType name="backoff" dt: type="int" />
```

```
<ElementType name="timeout" dt: type="int" />
```

```
<!--
  ruleBindingList ::= ruleBinding*
  ruleBinding ::= ruleRef messageRef messageRef
                (all | project matchList)
-->
```

```
<ElementType name="ruleBindingList">
  <element type="ruleBinding" minOccurs="0" maxOccurs="*" />
</ElementType>
```

```
<ElementType name="ruleBinding" content="eltOnly">
  <group order="seq">
    <element type="ruleRef" />
    <element type="messageRef" />
    <element type="messageRef" />
    <group order="one">
      <element type="all" />
      <group order="seq">
        <element type="project" />
        <element type="matchList" />
      </group>
    </group>
  </group>
</ElementType>
```



[illegible]